## DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 1.28

# WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-012003

Address: 333 Burma Road **Date Inspected:** 16-Feb-2010

City: Oakland, CA 94607

**Project Name:** SAS Superstructure **OSM Arrival Time:** 700 **OSM Departure Time:** 1530 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV Contractor: American Bridge/Fluor Enterprises, a JV **Location:** Job Site

**CWI Name:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:** 

**Bridge No:** 34-0006 **Component:** Orthotropic Box Girder (OBG) 1/4 West

## **Summary of Items Observed:**

Quality Assurance (QA) Inspectors Bill Levell and Michael Foerder were on site between the times noted above at the Pier 7 job site as part of the arrival inspection team to perform a general arrival inspection and review of OBG sections designated 1 West and 4 West. In addition QA inspector Michael Foerder performed periodic reviews of the in process work being performed by Quality Control (QC) and ABF personnel. The following is a list of the items observed; see individual item numbers in the body of this report for further details.

- 1. Exterior Sea Fastening Support Locations.
- 2. Top Deck Plate Wood Support Frame.
- 3. Bottom Plate Wood Support Frame.
- 4. Transverse Tie Locations.
- 5. W OBG Connection Points.
- 6. In process work at Pier 7.

The QA inspectors arrived at the pier at 1000 and met with ABF personnel, Caltrans Structure personnel, the Structure Material Representative (SMR) and the QC inspection team for a brief general safety and orientation meeting prior to entering and accessing OBG Lift 1 West. The following areas and observations were reviewed and noted by QA personnel with QC personnel Bill Norris and Bonifacio Daquinag and Caltrans Assistant Structure Representative Masoud Modanlou being present:

LIFT 1 West

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Item 1 Exterior Sea Fastening Support Locations.

Access to the exterior of the OBG for the outward sea fastening locations was not possible at the time of review due to ABF craft personnel utilizing the available man-lifts. The QA inspectors spoke with QCM Jim Bowers in reference to the access of these lifts and he relayed the lifts would not be available on this date and other arrangements would be made.

# Item 2 Top Deck Plate Wood Support Frame

No apparent transportation issues observed. An area of deflection of the top deck plate measured to be 12mm was noted along the East edge at approximately Panel Point (PP) 12.5 at line W3. This is consistent with a similar observation on the East line in which Mr. John Kinsey has relayed these areas were reviewed in China previously to shipment. A digital photo is included in the body of this report. It was noted the lifting block attachments will stay in place on the top deck plate until the OBG is erected in the field. The contact points of the attachments will need to be reviewed at these locations at a later date. No apparent issues were observed in the general area surrounding them at this time.

# Item 3 Bottom Plate Wood Support Frame

No apparent issues observed. The contact points from the barge and the OBG currently have bearing pads in place with no apparent issues observed in the general area.

Item 4 Transverse Tie Locations – No apparent issues observed.

Item 5 W OBG connection point – No apparent issues observed.

#### LIFT 4 West

Item 1 Exterior Sea Fastening Support Locations.

Access to the exterior of the OBG for the outward sea fastening locations was not possible at the time of review due to ABF craft personnel utilizing the available man-lifts. The QA inspectors spoke with QCM Jim Bowers in reference to the access of these lifts and he relayed the lifts would not be available on this date and other arrangements would be made.

#### Item 2 Top Deck Plate Wood Support Frame

No apparent transportation issues observed. Three gouges in the top deck plate were noted by QA in which it appeared the areas were previously identified for minor base metal repair in China. The areas are at PP28 at the W4 line approximately 427 cm from the East edge of the OBG. A digital photo is included in the body of this report. It was noted the lifting block attachments have been removed on this section with typical coating issues observed which will be remedied at a later date after final placement in the structure.

## Item 3 Bottom Plate Wood Support Frame

No apparent issues observed. The contact points from the barge and the OBG currently have bearing pads in place with no apparent issues observed in the general area.

Item 4 Transverse Tie Locations – No apparent issues observed.

Item 5 W OBG connection point – No apparent issues observed.

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#### Item 6

The QA inspector noted and periodically observed ABF personnel performing the following work in preparation of mobilizing the OBG section to the erection site:

LIFT 3 East - two crews of ABF personnel are in the process of temporarily placing the splice plates for the closed ribs along the top deck plate. This work continued periodically throughout the shift.

LIFT 1 West – ABF personnel are in the process of grinding and buffing the bevel edges in preparation of performing the fit up and welding of the transverse weld seam in the field. A crew of ABF personnel are in the process of placing the lumber toe-boards on the top deck and the lay-out of the access holes which will be cut into the top deck plate.









# **Summary of Conversations:**

As noted above in summary of items observed.

# **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mohammad Fatemi (916)813-3677, who represents the Office of Structural Materials for your project.

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**Inspected By:** Foerder, Mike Quality Assurance Inspector **Reviewed By:** Levell,Bill QA Reviewer